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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,164	10/26/2001	Charles K. Crawford	KIMBALL 00.01	2731

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EXAMINER

PICKARD, ALISON K

ART UNIT

PAPER NUMBER

3676

DATE MAILED: 04/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/014,164

Applicant(s)

CRAWFORD, CHARLES K.

Examiner

Alison K. Pickard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-6,9-12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-6,9-12,14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 15, 9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Chupp (2,532,891).

Chupp discloses a vacuum system comprising a first flange 13 with a bolt hole, a second flange 14 with a bolt hole, and a thin flange 1 disposed there between. The thin flange has at least one bolt hole 5 aligned with the other bolt holes to receive a bolt 17. The thin flange has first and second sealing surfaces (e.g. at 6 and 7) to interact with the sealing surfaces of the flanges 13 and 14 to form a vacuum tight seal. The thin flange has a feed through and a mounting feature.

2. Claims 6, 9, 10, 12, 14, and 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Applicant's Admitted Prior Art (Figs. 1-5A and specification pages 1-4 under "Background").

Applicant's Figure 3 discloses a known flange having a first sealing surface with a knife-edge, a second sealing surface with a knife-edge, and at least one bolt hole extending from the first surface to the second surface. The other bolt holes are considered to be mounting features (or a threaded bore). The flange comprises a feed through. While it does not appear that Applicant has specifically stated that the known flange in Figure 3 is disposed between a first

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and second flange with a bolt extending through the bolt holes, it is considered inherent that the flange of Figure 3 is capable of being disposed between two flanges.

Or, in the alternative, one of ordinary skill in the art would know that a flange, such as that in Figure 3, could be used between two flanges to connect two items together as evidenced by (Haughey '698, Contin '637, Wolfe '576, etc.). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to dispose the prior art flange of Applicant's Figure 3 between a first and second flange to connect the items together and effect a vacuum tight seal.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-6, 9-12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford (5,593,123) in view of Crawford (5,671,956).

Crawford '123 discloses a thin flange comprising a first surface and a second, opposite surface. The flange comprises at least one bolt hole extending from the first surface to the second surface. The flange comprises at least one mounting feature 40 or 42 on an inner surface. The flange comprises at least one feed through. One of the surfaces comprises a knife-edge. Crawford '123 does not disclose a knife-edge on the other surface or that the flange is disposed between a first and second flange. Crawford '956 teaches using a flange between a first and second flange of a vacuum components to couple the components together with a vacuum tight

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seal. Crawford '956 teaches using a knife-edge on opposing surfaces of the flange to ensure the tight seal. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the flange of Crawford '123 by providing a knife-edge on the other surface so the flange could be used to couple two components of a vacuum system with a vacuum tight seal as taught by Crawford '956.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Applicant discloses a flange with two knife-edged surfaces and bolt holes extending from the first surface to the second surface. Using a flange between two other flanges is known as evidenced by Latham, Contin, Curtis, Wolfe, Esser, Richards, Haughey, and Crawford. Using a flange between two vacuum components and forming two sealing (knife-edge) surfaces on the flange is also known as evidenced by Crawford '956. Other prior art has been provided showing a gasket, which can be considered a thin flange, between two flanges and having sealing surfaces (e.g. Kirkpatrick and Chupp).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art shows various flanges and gaskets.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 703-305-0882. The examiner can normally be reached on M-F (9-6:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1113.

  
Anthony Knight  
SPE  
Art Unit 3676

AP  
April 5, 2003